

Appl. No. 10/006,316  
Amdt. dated November 13, 2003  
Reply to Office action dated July 17, 2003

### **AMENDMENTS TO THE SPECIFICATION**

On page 1, please replace the last paragraph (lines 21-26) with the following amended paragraph:

Within optical systems, apertures often appear in what are known in the art as optical "trains". An optical train is typically used to control and/or measure light, and optical systems typically have at least one, and sometimes several, optical trains. For sake of illustration, an optical train can be treated as has having three main components: a light source, a controlling device (e.g., an aperture), and a detector. These components generally are arranged in a serial manner.

On page 3, please replace the first full paragraph (lines 9-11) with the following:

Consequently, it is apparent that a need exists in the art for a method and system which substantially ~~decrease~~decreases noise due to reflections from one or more surfaces below the level of that manifested in comparably sized and situated related-art systems.

On page 5, please replace the first full paragraph (lines 4-11) with the following:

As described above, the behaviors of related-art systems which use assumed "ideal" apertures for sake of simplicity in calculation and design. Also as described above, the inventors have surmised that one reason why actual systems might tend to vary substantially from ideal systems is that backscatter of light from the aperture-

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defining structures might be creating measurably significant noise. To further understand their beliefs with respect to the above-identified problems, ~~following~~ the inventors briefly examine how light can be conceptualized when simple ray tracing diagrams are used.

On page 7, please replace the last paragraph (lines 21-29) with the following:

With reference now to Figure 6 illustrated is optical train 600, which is similar to optical train 100, only modified to included an implementation of the low-backscatter aperture structure 500. Shown is a surmised mechanism whereby light fro the light source 102 is reflected in a direction such that re-reflection ~~though~~ through the aperture ingress 512 is substantially minimized (e.g., such that the likely reflection of light it sin a direction which would make it unlikely that light would be re-reflected ~~though~~ through the ingress 512 of aperture 502). For example, the reflected ray would have direction either transverse to the directional arrow 602, or have a direction whose horizontal directional component is parallel to and in the same direction as directional arrow 602. Directional arrow 602 is intended to be representative of a line which a light ray would follow if it were to travel from ingress to egress, and directly along the axis, of aperture 502.